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## ABSTRACT

This study explored the issue of whether kindergartens and child care centers differed in terms of educational and caregiving components. Participants were 60 children between 3 and 4 years of age who attended child care centers or kindergartens in Dunedin, New Zealand, and 25 staff members of the programs. Interval-type observations of teachers' and children's interactions and activities were conducted. Findings indicated far more similarities than differences between staff behavior in the two types of programs. While center staff did more caregiving with the child and kindergarten staff did more supervision, both supervision and caregiving could be considered part of the caregiving component. Differences were found between children attending the two different types of programs. Compared to children in kindergarten, children in full-time and combined child care programs talked more with their teachers and were more likely to be close to a staff member. Since amount of contact between children and staff is a very important predictor of a number of measures of development, it should be a matter of concern that children in state-funded kindergartens experienced less interaction with teachers, than did children in the other programs studied. (RH)

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EDUCATION AND CARE COMPONENTS  
IN NEW ZEALAND CHILDCARE CENTRES AND KINDERGARTENS

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Education is usually thought to mean the deliberate fostering of cognitive and to a lesser extent social learning, while care implies watching over children with concern for their physical safety and feelings of security. In New Zealand, early childhood education was, until recently, largely believed to occur in sessional preschool programmes such as kindergartens or playcentres, while care was thought to be the primary component of longer full-day childcare programmes. Caldwell (1973) describes public perceptions in the U.S. of day care and nursery education in the seventies:

..... was not day care a service designed to provide care and protection for unfortunate children whose mothers were forced to work? And did not use of day care automatically identify a family as one in which there was social pathology? ..... Nursery education, on the other hand, was for children from storybook America, for the Dicks and Janes who would later appear in our readers, all blond and blue-eyed and fair skinned, happily chasing their dog Spot in the grassy yard of their Cape Cod house surrounded by its picket fence. All of these children had two parents who went to PTA meetings (Caldwell, 1973, p198).

Within the early childhood field the artificial barriers between the concepts of "education" and "care" are gradually being broken down. Bettye Caldwell on a visit to New Zealand in 1986 argued that because of the lack of meaningful distinction between education and care we should coin a new word "educare", to make explicit the inseparability of the two concepts. The New Zealand government's policy of administering childcare through the Education department is a recognition of the unity of care and education. Nevertheless this study looks at the issue of whether early childhood centres differ in what are commonly described as "educational" and "care" components.

Although attitudes are slowly becoming more positive, the legacy of the old view of childcare as providing custodial care, and kindergartens as providing education remains with us. Negative attitudes and a low status position for childcare still linger (O'Rourke, 1981). Stonehouse (1980) points out that childcare has an "ugly step sister" image with many myths about childcare being prevalent. Unfortunately when these perceptions of childcare as a "necessary evil" filter down to caregivers and parents, they may be more likely to accept mediocrity and fail to provide or insist on a good experience for children.

Penn (1982) argues that childcare is seen as part of the unpaid work that women do, and that this lowers the quality and status of childcare. A belief that childcare workers do not need training but should rather be warm motherly people is part of this patronising approach (eg Geddis, 1980, p203). Such a view may not have entirely disappeared among Australian early childhood professionals. While attending an Early Childhood conference in Australia several years ago the author was chatting to an early childhood lecturer teaching in a four year programme at a College of Advanced Education and asked whether this programme was available for training childcare workers. "I should think not!" replied the lecturer.

A judgemental view of parents who have children in childcare centres is also often reported (O'Rourke, 1981). Parents are described as "dumping their children" and handing over their children's upbringing to an institution. Disapproval from family and friends about the use of childcare was reported by about three quarters of a parent sample in a recent study (Sherrell, 1987).

Betty Caldwell has for many years criticised professionals and the public for their negative views of childcare:

All too many people have made totally unsubstantiated accusations about the generally poor quality of available childcare care programmes..... Horror stories have happened, but we have absolutely no data to help us know how frequent such occurrences are (Caldwell, 1984, p5).

She advocates the acceptance of childcare as part of a spectrum of early childhood services as well as more careful gathering of research information. The integration of childcare into the Education field has improved the image of childcare in New Zealand but observational research data is still lacking.

In order to evaluate and hopefully dispel existing stereotypes of childcare centres as providing custodial programmes and little education (compared to other preschool programmes) it is necessary to collect objective data about child and staff activities in different kinds of centres. The present study examines whether there are any differences in the educational and care components of activities in kindergartens and childcare centres by looking at staff and child behaviour. The data on staff and child behaviour presented in this paper was collected as part of a major study of communication between parents and staff in early childhood centres (Smith, Hubbard & Barham, 1986; Smith & Hubbard, in press a; Smith & Hubbard, in press b).

### Method

#### Sample

The sample consisted of sixty children between three and four years of age attending childcare centres or kindergartens in Dunedin, New Zealand, and twenty-five staff members from the early childhood centres they attended. The children were between 41 months and 60 months with a mean age of 52.05 months. Twenty of the children were attending a childcare centre for more

than 25 hours a week, twenty were attending a combination of two or more different childcare/preschool/family day care arrangements for between 15 and 25 hours a week and twenty were attending a kindergarten for between 9 and 15 hours a week. The full-time childcare group attended 3 childcare centres varying in size from 20 to 30 with teacher/child ratios of 1:5 to 1:8. (At the time in 1985 these were the only full day childcare centres in Dunedin). The kindergarten children attended 5 kindergartens (all except 3 attended in the morning) with a maximum group size of 40 and a teacher/child ratio of 1:20. (Actual attendances were often 30 or less so the real staff/child ratio was more like 1:15). The combined care group attended a combination of 6 childcare centres (including 3 sessional centres), 8 kindergartens, one supervised family day care scheme and several informal arrangements.

The three groups of children were not exactly matched but there was no significant difference between the socioeconomic status of the fathers of the three groups. The two childcare groups had a slightly higher incidence of single parenthood and a slightly higher maternal socioeconomic status than the kindergarten group.

The teacher sample consisted of 24 female and 1 male teachers. Two teachers from each of the centres attended by target children were observed. There were 5 full-time childcare staff, 8 sessional childcare staff and 12 kindergarten staff. All of the kindergarten staff had New Zealand kindergarten teachers' Diplomas (obtained at Teachers Colleges) and all of the childcare staff except two had some relevant training but of very diverse types.

#### Procedure

Interval-type observations were carried out using a low beep to signal a 10 second "observe" interval and a 5 second beep to signal a 5 second "record" interval. During the record phase the observer noted on a data

recording sheet which category of behaviour occurred.

1. Observation schedule for teachers. Every staff member was observed once for 36 minutes during the hour when the centre was first open in the morning, at the time when children were being dropped off at the centre by their parents. The observations showed how staff interacted with children, and colleagues and what activities they were involved in. (Interactions with parents were also measured and have been reported in another paper, Smith & Hubbard, in press a.)

The main categories and sub-categories of interaction or activity recorded for teachers were:- Staff-child (verbal, socioemotional positive, sociemotional negative, greetings/farewell), Staff-staff, and Activity (caregiving child, caregiving environment, facilitation of play, supervisory, leading a group activity).

2. Observation Schedule for Children. Every child subject in the study was observed on one occasion for 30 minutes from the moment he or she first arrived at the early childhood centre. (Parents advised the researchers of the approximate time of arrival of their child at the centre). The observations showed the amount of parent-child, teacher-child and peer-child interaction and the type of child play or activity which occurred.

The main categories and sub-categories of interaction or activity recorded for children were:- Child-Parent (proximity, physical contact, crying, whining, physical avoidance, refusal to comply, positive interactive play, greetings/farewell), Child-Staff (sub-categories as for child-parent), Child-Child (negative interactive play, talk) and Activity (unoccupied, onlooker, solitary independent, parallel, associative, dramatic, caregiving with the environment, group activity led by adult).

Detailed definitions of the behavioural categories used may be obtained by writing to the author.



### Reliability

Six reliability checks were made by two independent observers. The mean percentage of agreement for staff observations was 87.8%. and for children 88.1%.

### Data Analysis

Means were calculated for observed teacher and child behaviours. 1 X 3 analyses of variance were calculated with group (full-time childcare, combined care, kindergarten) as the independent variable and all the child observational data as dependent measures. 1 X 2 analyses of variance were calculated with staff category (childcare versus kindergarten) as the independent variable and all the teacher observational data as dependent measures.

### Results

#### Staff Behaviour

Table 1 shows the mean number of intervals staff spent in various activities on 36 minutes of one morning during the beginning of the session. One way analyses of variance revealed that there were no significant differences between childcare and kindergarten staff on staff-child interactions or staff-staff interactions. There were also no differences in most of the staff activities but kindergarten staff did significantly more supervisory activity ( $F = 12.92$ ,  $p = .0015$ ) and childcare staff did significantly more caregiving with the child ( $F = 4.82$ ,  $p = .039$ ).

#### Children's Behaviour

Table 2 shows the mean number of intervals of different categories of child behaviour in 30 minutes from when they arrived at the centre. (Play and Activity data has been omitted from the table because of length and lack of significant differences.) (1 X 3) analysis of variance examined the effect of early childhood arrangement on children's behaviour. There was a significant

effect of childcare/preschool arrangement on physical contact with parents ( $F = 4.84$ ,  $p = .0116$ ) with full-time childcare children touching their parents more than kindergarten children or combined care children. Combined childcare children were close to their parent in only about 2 intervals while full-time childcare children were touching their parents in about 5 intervals. (Scheffe post hoc comparisons showed that a significant difference at the .05 level occurred between the full-time childcare group and the kindergarten group).

There was also a significant effect of early childhood arrangement on farewell behaviour ( $F = 3.75$ ,  $p = .0297$ ). Children in full-time childcare gave parents more farewells than kindergarten or combined care children. (There was a significant difference at the .05 level using the Scheffe test only between the full-time childcare and the kindergarten groups).

There was a significant effect of early childhood arrangement on proximity behaviour of children to staff ( $F = 3.33$ ,  $p = .0431$ ) with full-time childcare and combined childcare children being closer to a staff member more often than kindergarten children. (Pairwise comparisons using the Scheffe did not, however, show differences between pairs of means).

There was also an effect on physical contact with the teacher ( $F = 3.72$ ,  $p = .031$ ) with combined childcare children having considerably more of this than full-time childcare or kindergarten. (Pairwise comparisons using the Scheffe test again did not reach significance).

Early childhood arrangement was also related to amount of verbal contact that the child made with the teacher ( $F = 5.92$ ,  $p = .0047$ ) and with the total amount of child-teacher contact ( $F = 4.25$ ,  $p = .0192$ ), with both full-time and combined childcare children having more verbal and total contact with the teacher than kindergarten children. (Scheffe pairwise comparisons showed significant differences at the .01 level between the

kindergarten and full-time childcare group and between the kindergarten and combined childcare groups).

Kindergarten children had more verbal contact with peers ( $F = 2.77$ ,  $p = .072$ ) and more total contact with peers ( $F = 2.57$ ,  $p = .085$ ) than combined or full-time childcare children, although these differences did not reach statistical significance.

### Discussion

A comparison of kindergarten and childcare centre staff activities showed that there were far more similarities than differences between staff behaviour in the two types of early childhood centre. Staff in childcare centres and kindergartens did not differ in the amount of time they spent in interactions with children or colleagues. The only difference which occurred was in two of the sub-categories of staff activity. Childcare staff did more caregiving with the child and kindergarten staff did more supervision.

Both supervision and caregiving with the child could be considered part of the "care" component of centres. During supervision the teacher watches over a group of children in an essentially custodial, non-interactive manner usually with a concern for children's safety and the appropriateness of their behaviour. The greater amount of supervision in kindergartens is probably a consequence of their poorer staff/child ratios compared to childcare centres. Teachers in kindergartens must keep a watchful eye on the large group of children for whom they are responsible from the safety point of view alone. Caregiving with the child involves a more interactive (and possibly more potentially educational) type of physical care necessitated by children being at a childcare centre for a longer time, so that activities like eating, dressing, toileting and sleeping are more likely to be part of the child's day.

Staff behaviours which could be identified with an "educational component" are verbal interactions with children, facilitation of play, or leading a group activity (a very infrequent staff behaviour). Yet there was absolutely no difference between the behaviour of staff working in kindergartens and childcare centres in these categories.

Examining child behaviour gives a slightly different perspective on early childhood programmes since it shows what children experience, rather than what staff output is. There were some interesting differences in children who attended different centres. Full-time childcare and combined childcare children talked more with their teachers and were more likely to be close to a staff member than kindergarten children. Combined childcare children (but not full-time childcare children) touched staff more. There is a suggestion, though the difference is not quite significant, that kindergarten children interact more with their peers than childcare children. Perhaps the reduced availability of adults due to poorer staff/student ratios encourages kindergarten children to play more with each other rather than seek adults out.

Talking to the teacher was often accompanied by physical closeness (and in the case of combined childcare children) touching, suggesting that an affective caring component accompanies the educational experience of interacting with an adult.

There is no evidence to support the view that kindergartens offer primarily education and childcare centres primarily care. Kindergarten teachers do not do any less educational activities than childcare staff and are just as busy but they are more thinly spread, so that children are less likely to have contact with them. Kindergarten teachers are, because of working with poorer ratios, spending more time in supervisory rather than interactive behaviour. Talk occurs more readily between child and teacher

when children are physically and psychologically close and this appears to be more likely to occur in the childcare centres observed in this study. Setting differences, such as staff/child ratio or group size, are probably a much stronger influence on the custodial aspect of care than whether the centre is a childcare or a kindergarten. Physical childcare is the only care component which predominates in childcare centres probably because staff have more responsibility for this aspect of children's functioning.

There was more contact between children and parents in full-time childcare centres than between children and parents in kindergartens or combined arrangements. Children in all day childcare seemed to make a special attempt to give parents a cuddle and say a careful goodbye, perhaps because they are going to be away from them for longer. Another interpretation is that full-time childcare parents take longer to talk to staff (see Smith & Hubbard, in press a) and that children consequently stay with them longer until they leave. We often observed a child holding a parent's hand while the parent chatted to a staff member. Many kindergarten parents did not come into the centre every day, either participating in car pools or dropping children off at the gate.

Most childcare parents took time to ease the transition of the child from home to centre. Other interview data (Smith & Hubbard, in press a) suggest that childcare parents also communicate with staff more about their children and the centre programme and policy than kindergarten parents. Childcare parents do not "dump" their children and hand over their upbringing to childcare centres.

It should be a matter of concern that children in our main state-funded early childhood service in New Zealand, kindergartens, get less interaction with teachers. The amount of contact between children and staff is a very important predictor of a number of measures of development (McCartney et al

1982; McCartney, 1984; Travers, 1980), particularly language development. If the state wants to get the best value out of the taxpayers' dollar and actually allow children to benefit from experience in kindergartens then better staffing ratios are essential. While a new staffing scheme which introduces a third teacher into kindergartens is being implemented, progress in gaining a third teacher for every kindergarten is still rather slow.

More equitable funding for childcare is also important as it is currently mainly a user pays service. The study suggests that childcare services in Dunedin are of good quality rather than a second-rate "baby-sitting" service. Childcare staff interact in as "educational" a way as kindergarten staff and parents are responsible and caring. Continuing moves towards the integration of administration and training for early childhood services is certainly well-justified by this study. What we need is good quality early childhood "educare" across all services.

While this study only looks at centres in one small Dunedin city, I hope that it goes some way to dispel professional and public attitudes which are disparaging towards childcare centres and the families who use them. Further research, however, is necessary to improve knowledge about the functioning of early childhood centres in Australia and New Zealand.

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Table 1Observations of Staff Behaviour

	<u>Childcare</u> (n=13)		<u>Kindergarten</u> (n=12)		<u>Total</u> (n=25)	
STAFF-CHILD INTERACTIONS	$\bar{X}$	s.d.	$\bar{X}$	s.d.	$\bar{X}$	s.d.
Verbal	74.38	40.70	96.08	20.09	84.80	33.70
Socioemotional Positive	16.31	15.26	22.08	14.22	19.08	14.75
Socioemotional Negative	1.31	1.60	1.00	1.28	1.16	1.43
Greetings	2.85	2.74	7.08	4.74	4.88	4.32
Total	80.77	43.37	103.67	17.74	91.76	34.94
STAFF-STAFF INTERACTIONS	8.77	9.16	6.25	6.88	7.56	8.08
STAFF ACTIVITY						
Caregiving child	19.08	24.93	3.17	2.79	11.44	19.50
Caregiving environment	15.46	17.68	13.33	15.14	14.44	16.21
Facilitation of play	53.62	36.19	56.33	33.49	54.92	34.21
Supervisory	19.54	20.90	65.33	40.51	41.52	38.93
Leading a group activity	.85	2.76	0	0	.44	2.00
Total intervals of activity	108.54	52.14	138.17	9.27	122.76	40.33

Table 2Observations of Children's Behaviour

CHILD-PARENT		<u>FULL-TIME</u> (n=20)	<u>KINDY</u> (n=18)	<u>COMBINED</u> (n=20)	<u>TOTAL</u> (n=58)
Proximity	$\bar{X}$	9.05	5.77	2.15	5.66
	s.d.	13.46	22.04	4.17	14.81
Physical contact	$\bar{X}$	4.9	.5	2.35	2.67
	s.d.	6.22	.62	4.08	.61
Positive interactive play	$\bar{X}$	4.35	1.39	.25	2.02
	s.d.	8.56	5.89	1.11	6.19
Greetings/ farewells	$\bar{X}$	.60	.17	.25	.34
	s.d.	.60	.38	.55	.55
Verbal	$\bar{X}$	4.4	3.3	.95	2.90
	s d.	5.29	10.58	2.14	6.81
Total	$\bar{X}$	13.50	6.67	4.55	8.29
	s.d.	14.73	22.04	7.09	17.79
CHILD-TEACHER					
Proximity	$\bar{X}$	39.95	19.00	34.00	31.19
	s.d.	24.44	23.68	29.51	27.07
Physical contact	$\bar{X}$	3.10	2.37	8.70	4.76
	s.d.	4.42	5.98	11.60	8.35
Positive interactive play	$\bar{X}$	5.05	7.68	7.00	6.54
	s.d.	9.83	15.54	11.54	12.30

Table 2 (cont'd)

CHILD-TEACHER (cont'd)		<u>FULL-TIME</u>	<u>KINDY</u>	<u>COMBINED</u>	<u>TOTAL</u>
Verbal interactions	$\bar{X}$	23.65	9.79	20.65	18.17
	s.d.	11.50	11.29	16.11	14.27
Total interactions	$\bar{X}$	47.50	25.53	46.90	40.22
	s.d.	24.85	25.92	29.10	28.15
CHILD-PEER					
Negative interactions	$\bar{X}$	.70	.47	.65	.61
	s.d.	1.26	.96	.94	1.05
Positive interactions	$\bar{X}$	25.45	35.89	21.05	27.32
	s.d.	21.54	21.63	17.12	20.79
Total	$\bar{X}$	26.10	36.11	21.65	27.81
	s.d.	21.92	21.83	16.98	20.89